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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/544,285

Filing Date: August 03, 2005

Appellant(s): KENTNER ET AL.

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11 January 2010

For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 29 October 2009 appealing from the Office action  
mailed 17 June 2009.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

4,368,622	Brooks	1-1983
6,880,949	Miozza et al.	4-2005
4,285,391	Bourner	8-1981

2002/0071903	Lee et al.	6-2002
2,206,102	Meuer	7-1940
DE3404256	Graf	8-1985

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 14-17, 21, and 24-27 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Miozza et al. (US 6,880,949).

In re claim 14, Miozza et al disclose a refrigeration appliance, comprising: a housing (see marked up figure 2); said housing enclosing an inner area (122, figure 2); said inner area enclosed by a door (136, figure 1); a carrier module (figure 7) located in said housing (see marked up figure 2); and said carrier module including a control circuit (174, figure 3) for controlling (via 172, figure 3) the refrigerating capacity of the refrigeration appliance (figure 1) in said inner area (122, air space within pan, figure 2) depending on a temperature measuring signal (see temperature sensors recited in C4, L21) related to the temperature in said inner area (122, air space within) (see C8, L28-38 re controlling drawer temperature), at least one operating element (264 temp selector, C8, L47) for at least one of adjusting an operational parameter (temperature of drawer) and a display element (176, figure 3) for displaying an operational parameter (temperature settings, C6, L18-20) of said refrigeration appliance (figure 1) and at least one illuminating agent (206, figure 7) for illuminating at least some of said inner area (see light 206 positioning in figure 6 which shines in drawer). As discussed above, the housing of Miozza inherently has some degree of insulated property. Further, even if one disagrees with this premise, it is submitted that it would have been obvious to one of ordinary skill in the art as

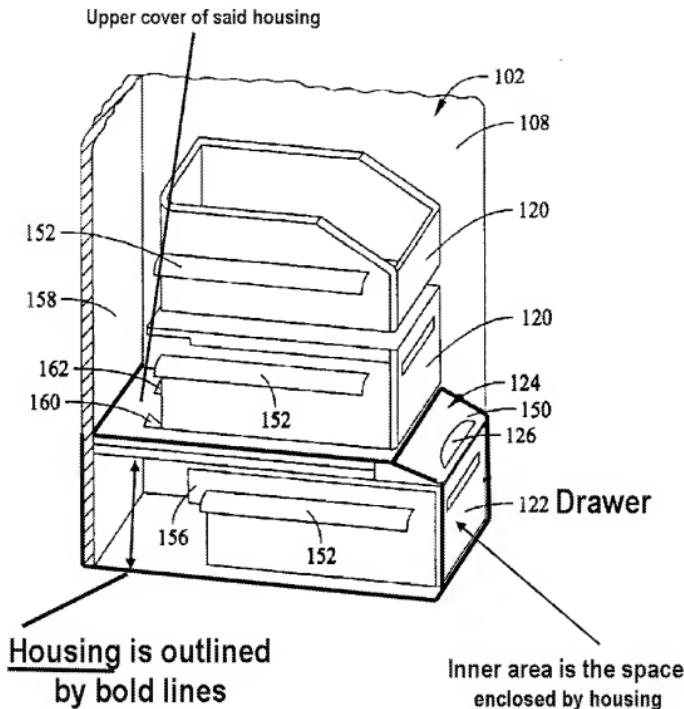
a simple matter involving predictable results to further insulate the housing of Miozza for the purpose of reducing heat exchange between the compartment and the rest of the refrigerator when the temperature within the compartment is set at a different temperature.

For the record, it is further noted that the compartment of Miozza et al. is in fact in contact with the insulated rear wall of the refrigerator (as illustrated in Figure 2). Accordingly, it is proper to consider the compartment as being insulated (there is nothing that requires that the *whole* compartment housing be insulated, or that the carrier module be mounted on that portion of the housing that is insulated).

In re claim 15, Miozza et al disclose the invention above and further disclose a compartment (124, C7, L10) for said carrier module (figures 6-8, C9, L40-47) formed in an upper cover (see marked up figure 2) of said housing (see marked up figure 2).

In re claim 16, Miozza et al disclose invention above and further disclose said cover (210) designed as a side plate (see figure 2, upper cover portion) forming the upper portion of the housing exterior (see marked up figure 2).

In re claim 17, Miozza et al disclose invention above and further disclose that said carrier module (figure 6) and said compartment (124, fC7, L10) have at least a pair of electrical pin-and-socket connectors complementary to one another (see C9, L34-40 regarding connector end 292, figure 8 having pins and therefore inherently having socket side).



Miozza et al '6,880,949' Marked up figure 2

In re claim 21, Miozza et al disclose the invention above and further disclose that said carrier module (figure 6) has a free outer face (174, display) facing an upper edge of said door

(136, perpendicular from face of free face is the top edge of the refrigerator door) and including at least one window (broadly interpreted as the protective cover over the display panel 126) formed in said free outer face (free outer face meaning an exterior surface of display panel) through which said inner area can be lit up by said illuminating agent (206) located in said carrier module (see C6, L1-6 regarding light switches on control panel interface 126 and C7, L60-65 regarding light controls coupled to control interface 126).

In re claim 24, Miozza et al disclose the invention above and further disclose that said carrier module (figure 6) bears a removable housing (320, figure 10, lamp holder, C9, L62-67), which covers said illuminating agent (206, figure 7, light assembly).

In re claim 25, Miozza et al disclose the invention as already discussed above and further disclose a door-opening sensor (inherently part of door switch, C5, L66) arranged on said carrier module (see C5, L63-68 re door switch interface).

In re claim 26, Miozza et al disclose invention above and further disclose that said inner area (122, space within) fitted with tray-shaped cool goods compartments (122, drawer itself, C3, L60, figure 2), (see figure 2).

In re claim 27, Miozza et al disclose the invention above and further disclose a refrigeration appliance, comprising: a housing (see marked up figure 2); said housing enclosing an inner area (122, space within); said inner area enclosed by a door (136); a compartment formed in an upper cover of said housing, and a carrier module (figure 6) located in said housing compartment (see marked up figures 2); and said carrier module including a control circuit (174, figure 3) for controlling (via 172, figure 3) the refrigerating capacity of the refrigeration appliance (figure 1) in said inner area depending on a temperature measuring signal (see temperature sensors recited

in C4, L21) related to the temperature in said inner area (C8, L28-38 re controlling drawer temperature), at least one operating element (264 temp selector, C8, L47) for at least one of adjusting an operational parameter (temperature of drawer) and a display element (176, figure 3) for displaying an operational parameter (temperature settings, C6, L18-20) of said refrigeration appliance and at least one illuminating agent (206, figure 7) for illuminating at least some of said inner area; and said carrier module including at least one window (mounting hole 240) formed therein through which said inner area can be lit up by said illuminating agent (206, see C7, L60-65 regarding light controls coupled to control interface 126 ).

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over by Miozza et al '6,880,949 in view of Bourner '4,285,391'.

In re claim 18, Miozza et al disclose said carrier module (figure 6) having pin and socket connectors; however, they fail to explicitly recite pin-and-socket connectors are arranged in a self-contacting manner when said carrier module is inserted into its own compartment space.

Bourner teaches said pin-and-socket connectors are arranged in a self-contacting manner when the unit (e.g. a carrier module) is inserted into a compartment (figure 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to further evolve Miozza's pin-and-socket connectors into being arranged in a self-contacting manner as taught by Bourner in order to advantageously provide a secure connection, one that is unaffected by vibration, and thereby, optimizing performance.

1. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miozza et al '6,880,949 in view of Graf DE 3404256.

In re claim 19, Miozza et al disclose a pin-and-socket connectors of said compartment each are arranged on a mobile cable (see flexible ribbon connector 290 in figure 8, C9, L33-39 whereby a ribbon cable is considered inherently mobile) above; however, they fail to explicitly recite said carrier module includes a strain relief on which said cable can be fastened.

Graf teaches a strain relief (element 17 being the relief means, figures 3-5) on which a cable can be fastened (cable is fastened to moving end and when the component gets inserted the wires meander through part 17 storing the extra "strain relief" wiring.)

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to fit Miozza et al with a pin and socket connector of said compartment each are arranged on a mobile cable and said carrier module includes a strain relief on which said cable can be fastened as taught by Graf in order advantageously provide freedom of motion for the cable without damaging the sheathing by straining, and thereby, prolonging the cables life.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miozza et al '6,880,949, as modified by Graf DE 3404256, as applied to claim 19, and further in view of Meuer '2,206,102.'

In re claim 20, Miozza et al, as modified by Graf, disclose a pin and socket connection above; however, they fail to explicitly recite a strain relief is formed as a meandering channel in which said cable can be placed.

Meuer teaches a meandering channel (tortuous through wire passage or groove [or channel] 86, page 4, column 2, L3-10) for the placement of cabling, in a refrigeration (page 1, C1, L3) application for the purposes of strain relief (page 1, C1, L24).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Miozza et al and Graf, with said strain relief is formed as a meandering channel in which said cable can be placed as taught by Meuer in order to advantageously provide freedom of motion for the cable without damaging the sheathing by straining, and thereby, prolonging the cables life.

Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being obvious over Miozza et al '6,880,949 in view of Lee et al '2002/0071903.'

In re claims 22 and 23, Miozza et al disclose a carrier module having a display window above; however, they fail to explicitly teach that the carrier module display window has a glass pane fixed to the carrier module.

Lee et al teach using antimony-tin oxides (ATO) as anti-fogging heating layer on glass, especially environments where cool air mixes with warmer moist air (see paragraph [0057], line 4 re anti-fogging features).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Miozza et al by incorporating a glass panel, coated with antimony-tin oxides, to cover the displaying features (e.g. LED lights) unobstructed by condensation that may occur when warm moist air enters, e.g. a refrigerator (please note that glass would be the design choice since said coating cannot be applied to plastic surfaces) as taught by Lee et al in order to advantageously optimize the visibility of display providing for accurate reading that will lead to accurate operational settings, and thereby, conserve energy.

#### **(10) Response to Argument**

Claim 14

As per independent claim 14, Appellant presents five main arguments, each of which is addressed in turn:

*1) Miozza et al. do not teach a carrier module located on the insulated housing.*

The Examiner respectfully disagrees. As clearly set forth in the rejection, the refrigerated housing is interpreted as being the housing of quick chill/thaw pan 122. This is an entirely reasonable and proper interpretation of the claim language given the broadness of the term “housing”. The carrier module (mullion 124) is clearly mounted on the housing (Figure 2). The issue of whether housing is insulated is addressed in detail in response to arguments 4 and 5, below.

*2) The features of Appellant's invention are important for providing a compact, integral arrangement of functional elements on a carrier module that allows assembly of the modules using time-saving large-scale production processes.*

The Examiner does not dispute that Appellant's invention provides such advantages. However, such features are only discussed in the specification and not recited in the claims themselves. To give such features weight constitutes improperly reading limitations from the specification into the claims.

*3) The quick chill and quick thaw pan mullion assembly 124 of Miozza et al. is disposed over a slide-out bottom drawer or pan 122 in the refrigerator compartment, not on the insulated housing of the refrigerator that forms the compartment.*

Again, given the broad nature of the claim language regarding “insulated housing,” it is entirely proper to interpret the refrigerated housing as being the housing of quick chill/thaw pan 122. The carrier module (mullion 124) is clearly mounted on the housing (Figure 2). Again, the issue of whether housing is insulated is addressed in detail in response to arguments 4 and 5, below.

*4) It is improper to interpret the housing of Miozza et al. as being insulated.*

The Examiner maintains that it is entirely reasonable and proper to interpret housing 122 as having insulating properties. Drawer 122 is a quick chill compartment designed to operate as a thermally different environment than that of the surrounding refrigerator. If there were no insulation properties provided by the housing, the functionality of the quick-chill feature would be defeated.

For the record, it is further noted that the compartment of Miozza et al. is in fact in contact with the insulated rear wall of the refrigerator (as illustrated in Figure 2). Accordingly, it is proper to consider the compartment as being insulated (there is nothing that requires that the

*whole compartment housing be insulated, or that the carrier module be mounted on that portion of the housing that is insulated).*

*5) It would not have been an obvious matter to one of ordinary skill in the art to insulate the compartment of Miozza et al.*

In the rejection, the Examiner noted that even if one does not accept the premise that the compartment inherently has insulated properties, that it would have been obvious to one of ordinary skill in the art as a simple matter involving predictable results to further insulate the housing of Miozza for the purpose of reducing heat exchange between the compartment and the rest of the refrigerator when the temperature within the compartment is set at a different temperature. As evidence to support this position, the Examiner has cited the Brooks reference (U.S. Patent 4,368,622), which shows a quick chill compartment of a refrigerator being insulated by insulation 20. The Examiner maintains that it would have been obvious to one of ordinary skill in the art as a simple matter involving predictable results to similarly provide insulation to the quick chill compartment of Miozza et al. for the same purpose of reducing heat exchange between the compartment and the rest of the refrigerator.

Claim 27

As per independent claim 27, Appellant presents three main arguments, each of which is addressed in turn:

*1) Miozza et al. do not teach a compartment formed in an upper cover of the insulated housing, and a carrier module located in the insulated housing compartment.*

The Examiner respectfully disagrees. Miozza et al. clearly teach the carrier module being located in a compartment formed in an upper cover of the housing compartment (mullion 124 fits into cavity (i.e., compartment) on the upper cover portion of the housing of the quick chill compartment as illustrated in Figure 2).

*2) The quick chill pan of Miozza et al. is not located on the insulated housing of the refrigerator and not in a compartment formed in an upper cover of the insulated housing.*

Again, the Examiner disagrees. Under a broad reasonable interpretation of the claim language, the housing of the quick chill pan is a “housing of the refrigerator.” The issue regarding the housing being insulated has already been fully addressed above. The issues regarding a compartment in an upper cover of the insulated housing was addressed in response to argument 1.

*3) Miozza et al. does not teach the carrier module include at least one window formed therein through which an inner area can be lit up by the illuminating agent.*

Again, the Examiner disagrees. Figure 7 of Miozza et al. teaches illuminating agent 206 located in a window portion of base 210 for illuminating at least some of the inner area (see light positioning in Figure 6 which shines in drawer through hole/window 240).

Claims 18-20, 22, and 23

As per dependent claims 18-20, 22, and 23, Appellant argues that these claims should be allowable because of the reasons already set forth regarding base claim 14. The Examiner submits that those arguments have been fully addressed above. Accordingly, the rejections of claims 18-20, 22, and 23 are maintained as proper.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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